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Water Supply Outlook For Idaho

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SOIL CONSERVATION SERVICE
U.S. DEPARTMENT OF AGRICULTURE

Cooperating with

IDAHO SOIL CONSERVATION DISTRICTS
IDAHO DEPARTMENT OF WATER RESOURCES

AS OF
JUNE 1, 1980

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: THE SNOTEL PROJECT CENTRAL COMPUTER FACILITIES IN PORTLAND, OREGON. THE TERMINAL, PRINTER, COMPUTER AND TAPE DRIVES HAVE NOT COMPLETELY REPLACED THE SNOW SAMPLING TUBES SEEN IN THE FOREGROUND.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno, Nevada 89505
Oregon	1220 S. W. Third Ave., Portland, Oregon 97204
Utah	4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U. S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.



WATER SUPPLY OUTLOOK FOR IDAHO

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

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WATER SUPPLY OUTLOOK for IDAHO



GENERAL SUMMARY FOR JUNE 1, 1980

The outlook for water supplies for Idaho is good to excellent for the 1980 season. The cool and extremely wet spring significantly increased runoff and reduced irrigation demands. Reservoir storage is good with all reservoirs having filled or expected to fill except for Oakley and Salmon Falls reservoirs in southern Idaho. Projected shortages in northern Idaho have been greatly alleviated by spring storms; however runoff is expected to drop sharply in the late summer and fall months.

Measurements at a limited number of snow courses near June 1, 1980 indicates a near normal snowpack remaining at high elevation sites.

Statewide precipitation during May averaged more than double of normal while temperatures were near average. The valley precipitation average for the month was 202 percent of normal, ranging from 131 percent at Grangeville and 141 percent at Port Hill to 255 percent at Pocatello and 286 percent at Boise. Temperatures in Northern Idaho averaged 1 degree above normal while the southern part of the state averaged 3 degrees below normal.

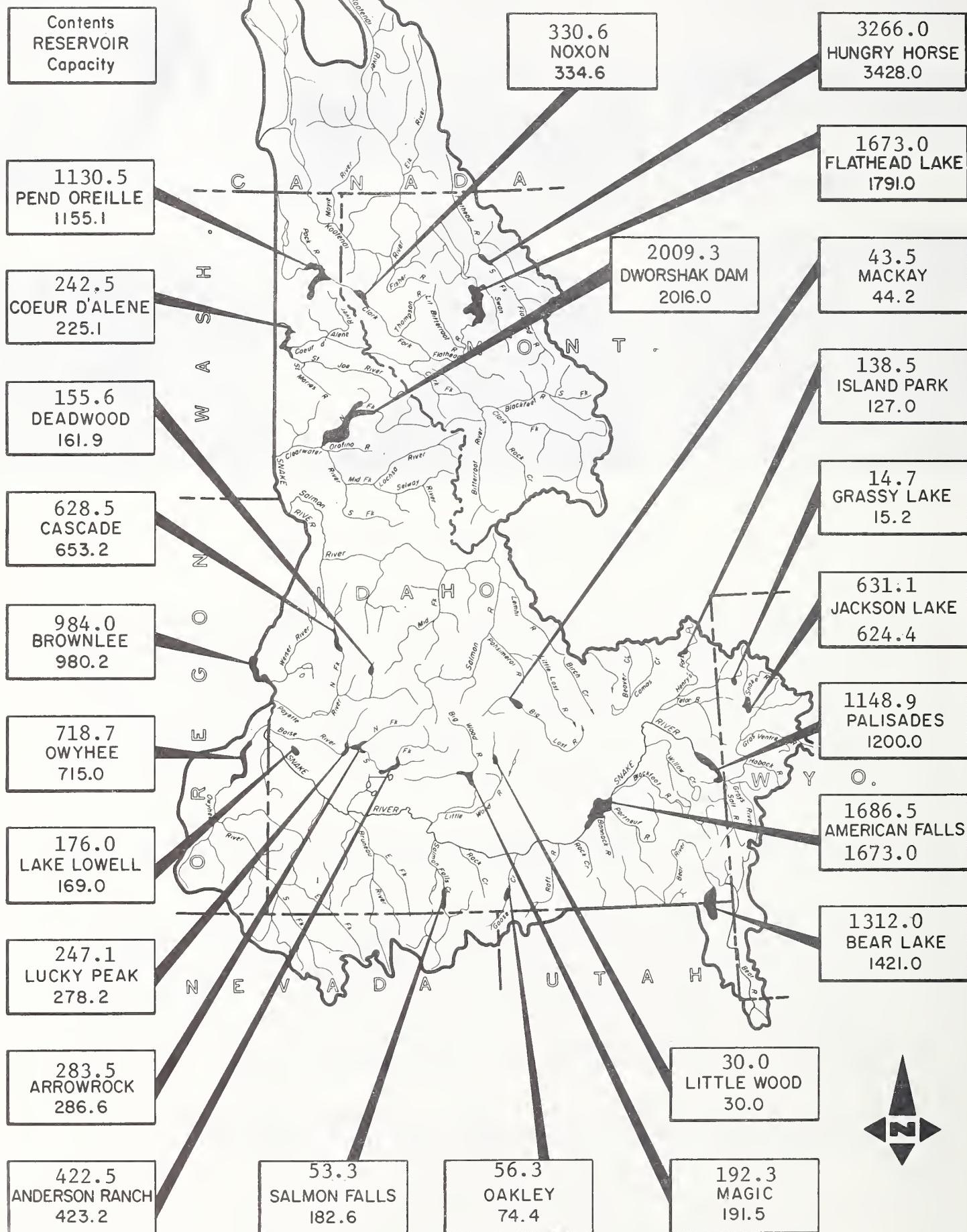
This report carries the June 1 and supplemental measurements for 1980 and corrections of previously published 1980 data.

RESERVOIR STORAGE

USABLE CONTENTS (1,000 Acre Feet)

JUNE 1, 1980

50 0 50 100 150
SCALE IN MILES



SNOW

DRAINAGE BASIN and/or SNOW COURSE NAME	Elevation	THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	Last Year
					Average ^b	

JUNE 1, 1980 MEASUREMENTS

Atlanta Summit	7500	5/30	46	21.4	8.0	20.5*
Bear Canyon	7920	5/28	17	5.3	0.0	4.1*
Big Creek Summit	6600	5/28	55	22.8	13.0	18.6
Bogus Basin	6340	5/29	9	2.7	0.0	3.5*
Brundage Mountain	7560	5/29	65	31.8	21.8	36.9*
Copper Basin	7650	5/28	0	0.0	0.0	--
Crawford Ranger Station	4800	5/28	0	0.0	0.0	--
Cub River Ranger Station	5450	5/28	0	0.0	--	--
Dollarhide Summit	8400	5/30	44	19.9	5.1	--
Fishpole Lake	9350	5/28	53	23.1	0.0	--
Franklin Basin	8040	5/28	13	5.2	--	--
Freds Mountain	8000	5/30	T	T	0.0	--
Galena	7300	5/29	0	0.0	0.0	2.6*
Galena Summit	8780	5/29	32	13.0	0.0	13.9*
Garfield Ranger Station	6560	5/28	0	0.0	--	--
Graham Ranch	6270	5/29	0	0.0	--	--
Lake Fork	6000	5/27	0	0.0	0.0	--
Lookout	5140	5/3	0	0.0	3.7	15.0*
Lost Wood Divide	7900	5/28	16	6.2	0.0	--
Mascot Mine	7760	5/28	T	T	0.0	--
Moore's Creek Summit	6100	5/29	28	12.6	4.0	12.5
Muldoon	6320	5/28	0	0.0	--	--
Pine Creek Pass	6750	5/30	0	0.0	0.0	--
Schweitzer Bowl	4500	5/30	0	0.0	0.0	--
Schweitzer Ridge	6200	5/30	11	5.4	16.7	--
Secesh Summit	6520	5/27	30	11.2	3.5	--
Squaw Meadow	5900	5/27	26	10.4	14.8	15.3*
State Line	6650	5/30	0	0.0	0.0	--
Stickney Mill	7430	5/28	0	0.0	0.0	--
Swede Peak	7640	5/28	5	1.4	--	--
Trinity Mountain	7780	5/30	59	29.7	10.6	25.7*
Vienna Mine	8950	5/30	62	30.7	16.0	29.4*
Willow Flat	6070	5/28	0	0.0	--	--

SUPPLEMENTAL MEASUREMENTSDECEMBER 1, 1979

Buck Meadows	5650	12/3	19	5.3	--	--
Kruze Meadows	4800	11/29	13	2.3	2.4	--
Soldier Meadows	4640	11/29	11	1.5	2.5	--
Webb Creek	4720	11/29	13	1.9	2.4	--

(b)1963-77, 15 year period. #Not located directly on this drainage. *Estimated 1963-77 15 year average. (A) Aerial observation Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

SNOW		THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average ^b

SUPPLEMENTAL MEASUREMENTS (Continued)

DECEMBER 15, 1979

Trinity Mountain	7780	12/13	33	9.6	--	--
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JANUARY 15, 1980

Atlanta Summit	7500	1/16	90	23.1	11.6	--
Bad Bear	5500	1/14	37	10.0	7.2	--
Graham Guard Station	5690	1/16	38	10.6	7.0	--
Jackson Peak	7070	1/16	80	21.0	10.8	--
Kruze Meadows	4800	1/11	25	4.9	--	--
Moores Creek Summit	6100	1/14	72	20.7	12.3	--
Mount Baldy	9000	1/15	66	14.2	5.0	--
Pierce Ranger Station	3170	1/15	24	5.6	8.9	--
Soldier Meadows	4640	1/11	24	4.8	--	--
Trinity Mountain	7780	1/16	96	27.7	13.4	--
Vienna Mine	8960	1/16	96	26.1	13.2	--
Webb Creek	4720	1/11	26	5.2	--	--

FEBRUARY 15, 1980

Atlanta Summit	7500	2/12	76	25.7	18.2	--
Bad Bear	5500	2/12	38	12.3	7.2	--
Crooked Fork	3600	2/18	27	7.2	12.2	--
Fish Lake Airstrip	5000	2/15	85	22.8	28.7	--
Graham Guard Station	5690	2/12	42	12.5	10.3	--
Hemlock Butte	5500	2/15	89	25.6	32.8	--
Jackson Peak	7070	2/12	74	24.8	--	--
Lolo Pass	5240	2/18	63	21.0	28.8	--
Moores Creek Summit	6100	2/12	70	24.5	34.2	--
Savage Pass	6170	2/18	61	19.2	23.4	--
Shanghai Summit	4600	2/15	50	12.4	23.0	--
Trinity Mountain	7780	2/12	87	31.6	26.5	--
Vienna Mine	8960	2/12	83	29.7	23.5	--

MARCH 15, 1980

Above Burke	4100	3/13	47	12.8	21.6	--
Atlanta Summit	7500	3/18	105	35.2	21.6	--
Bad Bear	5500	3/13	35	12.6	11.6	--
Crooked Fork	3600	3/18	27	8.5	11.4	--
Elk Butte	5420	3/17	86	24.5	--	--
Fish Lake Airstrip	5000	3/17	107	30.9	31.5	--
Fourth of July Summit	3200	3/13	12	3.2	11.6	--
Galena	7300	3/17	61	18.3	10.7	--
Galena Summit	8795	3/17	71	21.4	12.6	--

(b) 1963-77, 15 year period. *Not located directly on this drainage. ^Estimated 1963-77 15 year average. (1) Aerial observation Water content estimated (SP) Pressure Pillow snow-water equivalent.
(R) Radioactive Gage snow-water equivalent

SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	Last Year
NAME	Elevation					

SUPPLEMENTAL MEASUREMENTS (Continued)

Graham Guard Station	5690	3/18	49	15.3	11.1	--
Hemlock Butte	5500	3/17	111	33.4	37.1	--
Jackson Peak	7070	3/18	100	34.2	20.5	--
Lolo Pass	5240	3/16	79	24.5	31.1	--
Lookout Pass	5120	3/12	81	24.8	28.8	--
Lost Lake	6000	3/17	129	37.5	38.2	--
Moores Creek Summit	6100	3/13	88	31.3	22.7	--
Mount Baldy	9000	3/14	69	21.1	12.0	--
Prairie	4900	3/14	4	1.5	5.4	--
Savage Pass	6170	3/17	76	24.8	23.4	--
Shanghai Summit	4600	3/17	58	15.3	23.0	--
Sherwin	3200	3/14	25	6.5	15.7	--
Trinity Mountain	7780	3/18	119	43.7	26.5	--
Vienna Mine	8960	3/18	105	39.1	23.5	--

APRIL 15, 1980

Atlanta Summit	7500	4/14	108	41.1	25.3	--
Bad Bear	5500	4/14	32	12.7	7.3	--
Buck Meadows	5650	4/11	82	29.6	--	--
Fourth of July	3200	4/15	1	0.4	--	--
Galena	7300	4/14	54	20.1	19.6	--
Galena Summit	8795	4/14	74	27.0	17.3	--
Graham Guard Station	5690	4/14	43	16.5	7.4	--
Jackson Peak	7070	4/14	96	34.8	22.6	--
Lookout	5120	4/14	76	29.2	35.3	--
Moores Creek Summit	6100	4/14	96	37.6	24.0	--
Mount Baldy	9000	4/14	73	24.0	15.1	--
Prairie	4900	4/15	0	0.0	0.0	--
Trinity Mountain	7780	4/14	118	50.2	30.2	--
Vienna Mine	8960	4/14	98	39.0	--	--

MAY 15, 1980

Atlanta Summit	7500	5/14	58	27.9	23.8	--
Galena Summit	8795	5/14	34	16.3	--	--
Jackson Peak	7070	5/14	47	23.5	--	--
Lookout	5120	5/15	5	2.4	20.0	--
Moores Creek Summit	6100	5/14	45	22.3	19.6	--
Trinity Mountain	7780	5/14	69	36.9	28.2	--

(b)1963-77, 15 year period. #Not located directly on this drainage. *Estimated 1963-77 15 year average. (A) Aerial observation Water content estimated (SP) Pressure Pillow snow-water equivalent.
(R) Radioactive Gage snow-water equivalent.

SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
NAME	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	Last Year
						Average ^b

CORRECTIONS TO PREVIOUSLY PUBLISHED 1980 DATAFEBRUARY 1, 1980

Darby	Wyo.	8250	1/31	49	14.1	14.2	15.4*
Sawtell Mountain		8720	1/29	68	22.7	14.7	22.8*
Upper Home Canyon		8560	2/1	60	16.5	14.2	16.3*

MARCH 1, 1980

Mud Creek		7150	2/29	67	19.3	11.9	--
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APRIL 1, 1980

Crooked Fork		3600	3/28	25	8.9	11.0	14.1*
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ADDITIONAL MEASUREMENTS RECEIVED TOO LATE TO BE PUBLISHED

Bear Basin		5350	4/28	37	14.0	15.8	--
Cold Springs		7000	4/5	77	30.4	19.8	--
Hummingbird Springs (A) Nev.		8940	5/1	55	20.3	23.0	--
Kruze Meadows		4800	4/4	33	9.7	11.9	--
Putnam		7200	4/5	67	29.6	20.6	--
Soldier Meadow		4640	4/4	26	8.7	10.1	--
Toponce		6350	4/5	35	13.7	12.6	--
Webb Creek		4720	4/4	34	10.1	12.7	--

(b)1963-77, 15 year period. #Not located directly on this drainage. *Estimated 1963-77 15 year
Average. (A) Aerial observation. \$Water content estimated. (SP) Pressure Pillon snow-water equivalent.
(R) Radioactive Gage snow-water equivalent.

Agencies and Organizations Cooperating in Idaho Snow Surveys

GOVERNMENT AGENCIES

States:

Idaho Department of Water Resources
State of Idaho Department of Fish and Game
University of Idaho
Idaho State University
Montana Agricultural Experiment Station
Montana State Water Conservation Board
Montana Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon Agricultural Experiment Station
Oregon Cooperative Snow Surveys
Oregon State Engineer and Corps of
 State Watermasters
Utah Cooperative Snow Surveys
Wyoming Cooperative Snow Surveys

Federal:

U.S. Army Engineers

U.S. Department of Agriculture
 Forest Service
 Agricultural Research Service
 Statistical Reporting Service

U.S. Department of Commerce
 NOAA, National Weather Service

U.S. Department of the Interior
 Bonneville Power Administration
 Bureau of Reclamation
 Fish and Wildlife Service
 Water Resources Division, Geological Survey
 National Park Service
 Bureau of Land Management

PUBLIC UTILITIES

The Montana Power Company
Washington Water Power Company
Idaho Power Company
Utah Power and Light Company

ORGANIZED PUBLIC AGENCIES

Big Lost River Irrigation District
Blaine Soil Conservation District
Boise Project Board of Control
Idaho Water District #01
Little Wood River Irrigation District
Mann Creek Irrigation District
Salmon Falls Creek Irrigation Company
Twin Falls Soil Conservation District
Big Wood Irrigation Company
Owyhee Project - North & South Board of Control
Valley Soil Conservation District
Portneuf Soil and Water Conservation District
East Cassia Soil and Water Conservation District
West Cassia Soil and Water Conservation District
Camas Soil and Water Conservation District

*Other organizations and individuals furnish valuable information for
snow survey reports. Their cooperation is gratefully acknowledged.*



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